

REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow. Many of the Applicants' remarks and amendments to overcome the objections raised by the Examiner were not acknowledged in Final Office Action mailed 4/17/06. Accordingly, Applicants respectfully request that the Examiner fully consider the arguments made in this reply and the amendments and remarks made in Applicants' Amendment and Reply filed 2/8/06. Claims 1-16 are now pending in this application.

Claim Objections

Claims 3-8 and 10-12 were objected to for various formalities. However, claims 3-8 and 10-12 were not indicated as rejected in the Office Action Summary. Further, claims 3-8 and 10-12 were not rejected in the Examiner's detailed action. Thus, Applicants assume that claims 3-8 and 10-12 contain allowable subject matter notwithstanding the Examiner's objections. The objections to claims 3-8 and 10-12 are addressed below.

Claims 3-5

In objecting to claims 3 and 5, the Examiner stated that "the limitation 'said second feedback circuit means senses the instantaneous power to said electric heater' is inaccurate." Applicants respectfully disagree. The quoted claim limitation is accurate and is fully supported by the specification and drawings of the application. Applicants refer the Examiner to Figure 1 and at least pages 11-12 of the specification. Figure 1 illustrates an evaporator control circuit 27 connected to a power supply 25 via a bidirectional (see arrows) conductor 25a. A heater control circuit 26 outputs a signal SP_H (carried on the bidirectional conductor 25a) which determines the amount of power that is sent to a heater 20 by the power supply 25. The SP_H signal is received by the power supply 25 and the evaporator control circuit 27 via the conductor 25a. By receiving the SP_H signal, the evaporator control circuit receives a signal indicating the amount of power sent to the heater 20 by the power supply 25. Thus, as claimed in claim 3 "said second feedback circuit means senses the instantaneous power to said electric heater."

Accordingly, Applicants respectfully submit that claims 3 and 5 are allowable and requests that the objection to claims 3 and 5 be reconsidered and withdrawn. Further, the objection to claim 4 should also be withdrawn since it depends from allowable claim 3.

Claims 6-8 and 10

Claims 6, 8 and 10 were objected to for lacking antecedent basis with respect to the claimed limitation "said set-point." As stated on page (13) thirteen of Applicants' reply filed on 2/8/06, antecedent basis for the limitation "set-point" can be found on line two of claim 1. Accordingly, Applicants respectfully request that the objection be withdrawn and claims 6, 8 and 10 be allowed. Further, the objection to claim 7 should also be withdrawn since it depends from allowable claim 6.

Claims 11 and 12

Claims 11 and 12 were objected to for lack of antecedent basis. Claims 11 and 12 were amended on page (6) six of Applicants' Amendment and Reply filed 2/8/06, to include proper antecedent basis for the claimed limitations. Accordingly, Applicants respectfully request that the objection be withdrawn and claims 11 and 12 be allowed.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 9 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,184,504 ("Cardella"). Claims 2 and 13-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cardella in further view of U.S. Patent 6,711,961 ("Theriault et al."). In response, Applicants traverse the rejection as set forth below.

Applicants rely on M.P.E.P. § 2143, which states that to establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation in the prior art to modify the reference. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all the claim limitations. Applicants respectfully submit that Cardella does not disclose, teach or suggest all the claim limitations of independent claims 1 and 16.

Claim 1 is directed to a dual feedback control system comprising an evaporator and “an electric heater which has one face that is connected directly to said evaporator and an opposite face for coupling to said IC chip.” The Merriam-Webster Dictionary defines “directly” as “in immediate physical contact” wherein “immediate” is defined as “existing without intervening space or substance.” Thus, claims 1 and 16 of the present invention require that a face of the heater be in immediate physical contact with the evaporator. In contrast, Cardella discloses that the heat transfer member 95 and the thermal conductor 85 alternate between an uncoupled position wherein the temperature regulated surface 100 and the heat transfer surface 90 are not connected and a coupled position in which the temperature regulated surface 100 and the heat transfer surface 90 are engaged. (See Col. 3, lines 56-63.)

Applicants respectfully submit that the limitation of claims 1 and 16 reciting that the heater is “connected directly” to the evaporator is not anticipated by a reference teaching that two surfaces alternate between an uncoupled and coupled state. Further, Cardella does not provide any motivation to directly connect the temperature regulated surface 100 and the heat transfer surface 90. Instead, Cardella teaches away from this modification. Specifically, Cardella states that “[t]he temperature control system 20 controls the temperature of the electronic device 40 by alternating the temperature regulated surface 100 and electronic device 40 between thermally coupled and uncoupled positions.” (See Col. 3, line 64- Col. 4, line 1.) Therefore, a primary operation of the temperature control system disclosed by Cardella requires that temperature regulated surface 100 and the heat transfer surface 90 are not connected directly but instead alternate between coupled and uncoupled positions. Accordingly, based on this limitation alone a prima facie case of obviousness has not been established because Cardella (1) does not teach or suggest all the claim limitations and (2) there is no suggestion or motivation in the prior art to modify the reference. Thus, Applicants respectfully request reconsideration of the rejection and that claims 1 and 16 be allowed.

Claims 1 and 16 also recite an “evaporator controller including a second feedback circuit means for passing said liquid refrigerant to said evaporator with a variable flow rate that decreases as electrical power usage in said heater increases, and increases as electrical power usage in said heater decreases.” In the Final Office Action, the Examiner cites column 6, lines 22-50 to support the assertion that the above-mentioned limitation is disclosed by

Cardella. However, a careful reading of this passage indicates that Cardella does not disclose a system wherein the “variable flow rate...decreases as electrical power usage in said heater increases” or where the variable flow rate “increases as electrical power usage in said heater decreases” as claimed in claims 1 and 16. Cardella is silent on manipulating the flow rate of the transfer fluid in response to the electrical power being used by a heater. Instead, Cardella disclose a heat exchanger 160 that is adapted to add or remove heat to transfer fluid. (See Col. 6, line 22-25.) The heat transfer fluid is used to regulate the temperature of the heat transfer member 95. (See Col. 6, lines 30-46.)

Further, the Examiner’s assertion that the “relations between flow rate and the heater are obvious” is not supported by any objective evidence. Support for the Examiner’s explanation on page 6, lines 6-10 can not be found in the cited prior art nor is it an accurate description of the limitations at issue in claims 1 and 16. Accordingly, Applicants respectfully submit that claims 1 and 16 are patentable over Cardella because Cardella does not teach or suggest all the claim limitations and there is no suggestion or motivation in the prior art to modify the Cardella to meet the claimed limitations. Thus, for this additional reason Applicants respectfully request reconsideration of the rejection and that claims 1 and 16 be allowed.

Claims 2, 9 and 13-15 depend from claim 1 and are allowable for at least the reasons set forth above. In addition, with respect to claims 2 and 13-15, Theriault et al. fails to cure the deficiencies of Cardella. Accordingly, Applicants respectfully request that claims 2, 9 and 13-15 be reconsidered and allowed.

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

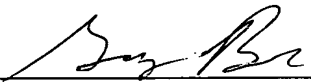
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment,

to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 7/12/06

By 

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